P

Name _____ Date _____

Practice: For use after Lesson 1.5, Algebra 2 with Trigonometry

Algebra 2
Unit #1
WS #10

Solving Equations in One Variable

Solve and check.

1. $4x - 3 = 25$ _____
2. $7y + 5 = 47$ _____
3. $\frac{z}{3} - 2 = 11$ _____
4. $\frac{x}{6} + 7 = 19$ _____
5. $x - 4 = 12 - 3x$ _____
6. $9y + 3 = 4y + 68$ _____
7. $\frac{2}{7}z + 18 = 8 - \frac{3}{7}z$ _____
8. $5(2y - 1) = -7(y - 1) + 5$ _____

Solve and check. Name the subset(s) of the real numbers to which each solution belongs.

9. $\frac{3}{4}z - 1 = \frac{5}{6}z$ _____
10. $3(y - 4) = 2y + 1$ _____
11. $8z + 7 = 4(z - 1) + 11$ _____
12. $9x - (4x - 6) = 17 + 2(3x + 8)$ _____

Applications

13. **Geometry** The formula for finding the area of a trapezoid is $A = \frac{1}{2}h(b + c)$, where b and c are the bases of the trapezoid and h is the altitude. Solve the formula for b.

_____

MIXED PRACTICE

Simplify.

14. $4x - 11x + 8$ _____
15. $3y - 1 + 6y + 2$ _____
16. $3(z - 7) - 4z$ _____
17. $\frac{x}{2} + 1 - \frac{3x}{5}$ _____

Solve and check.

18. $5x - 11 = 24$ _____
19. $3y + 6 = 5y + 20$ _____